



Sarah Byam/Lynn DeGeorge
WNS Environmental Coordinator
CPAI HEST – ALP 14
P.O. Box 196860
Anchorage, AK 99519-6105
Phone 907-670-4200

February 13, 2019

Certified Mail
Return Receipt Requested
7017 0530 0000 3354 8758

Attn: Compliance Technician
Air Quality Management Division
Alaska Department of Environmental Conservation
610 University Avenue
Fairbanks, Alaska 99709

**RE: Operating Report – Fourth Quarter 2018
Alpine Central Processing Facility
Permit No. AQ0489TVP02, Revision 2**

Enclosed is an original and one copy of the certified Alpine Central Processing Facility Operating Report (OR) for the fourth quarter beginning October 1, 2018 and ending December 31, 2018, as required by Permit No. AQ0489TVP02. Revision 2 of the permit was issued on September 11, 2018 and became effective on October 11, 2018.

The information in the OR covering the period from October 1, 2018 through October 10, 2018 satisfies the requirements of Revision 1 of the permit, while the information covering the period from October 11, 2018 through December 31, 2018 satisfies the requirements of Revision 2 of the permit. All condition numbers cited in this OR reflect those in Permit No. AQ0489TVP02 Revision 2 and include all reporting requirements under both versions of the permit.

If you have any questions or need additional information regarding this report, please contact us at n1838@conocophillips.com or by phone at (907) 670-4200.

Sincerely,

Sarah Byam/Lynn DeGeorge
WNS Environmental Coordinator

Enclosures

cc: Compliance Technician, Fairbanks

dec.aq.airreports@alaska.gov

Fourth Quarter 2018 Operating Report
October 1 through December 31, 2018

Permit No. AQ0489TVP02, Revision 2
Issued September 11, 2018

bcc: Laura Perry Electronic: Laura.Perry@conocophillips.com
Jeff Alger SLR (Electronic: jalger@slrconsulting.com)
Sims Duggins SLR (Electronic: seduggins@slrconsulting.com)
Air Compliance AirComplianceSupport@conocophillips.com
Air Quality Coordinator AirQualityCoordinator@conocophillips.com
ArchLive HE13
File: 8.2b.06 FORs – 2018 – Alpine – Q4

Table of Contents

- I. Operating Report Certification
 - II. Source Identification and Location
 - III. Permit Requirements and Compliance Documentation
 - IV. Visible Emissions Reporting Summaries
 - V. Particulate Matter Reporting Summaries
 - VI. Hours of Operation, Fuel Type, Fuel Consumption and Applicable Operating Parameters
 - VII. BACT Load Restrictions for Turbines (EU IDs 1-3)
 - VIII. Portable Flares (EU ID 417) Record of Operations
 - IX. Flare EU IDs 415 and 416 Record of Informal and Method 22 Visible Emissions Observations
 - X. Record of Complaints During the Reporting Period
 - XI. Operating Report Requirements
- Attachments
- Attachment 1 – Monthly Laboratory Analysis Results of Fuel Sulfur and H₂S Content
 - Attachment 2 – Hours of Operation, Fuel Type, Fuel Consumption and Applicable Operating Parameters by Month
 - Attachment 3 – Well Maintenance Flowbacks at CD-1, CD-2, CD-3, CD-4; ProMax® Model Inputs, Outputs, Calculations, and Assumptions
 - Attachment 4 – Copies of Excess Emission/Permit Deviation Reports Not Previously Submitted to ADEC during the Reporting Period
 - Attachment 5 – Copies of Excess Emission/Permit Deviation Reports Previously Submitted to ADEC during the Reporting Period
 - Attachment 6 – Method 9 Visible Emission Observation Forms
 - Attachment 7 – Informal and Method 22 Visible Emission Observation Records during the Reporting Period
 - Attachment 8 – NSPS and NESHAP Reports Submitted to EPA during the Reporting Period and Not Previously Submitted to ADEC
 - Attachment 9 – Reference Method Stack Test Results & Final Relative Accuracy Results

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

I. Certification

Permit Number: Air Quality Control Permit No. AQ0489TVP02 Revision 2, September 11, 2018

Operating Report: 1 October to 31 December 2018

Statement of Certification

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Signature: _____

Mike Lyden/Philip Susen
Alpine Operations & Maintenance Superintendent

Date: 2-13-2019**II. Source Identification and Location**

ConocoPhillips Alaska, Inc.
700 G Street
P.O. Box 100360
Anchorage, AK 99510-0360

Stationary Source Name: Alpine Central Processing Facility

Location: Alpine Oil Field

UTM Coordinates: Northing 7805.5 km, Easting 578.0, UTM Zone 5

Township and Range: Section 5, Township 11 N, Range 5 E, and
Section 32, Township 12N, Range 5E (CD1)
Section 2, Township 11 N, Range 4 E (CD2)
Section 5, Township 12N, Range 5E (CD3)
Section 24, Township 11N, Range 4E and
Section 19, Township 11N, Range 5E (CD4)
Umiat Meridian

Permit Number: Air Quality Control Permit No. AQ0489TVP02 Revision 2

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

III. Permit Requirements and Compliance Documentation

| Condition | Requirement | Compliance Documentation |
|---|--|--|
| Section 3: State Requirements | | |
| Visible Emissions and Particulate Matter Monitoring, Recordkeeping and Reporting | | |
| 1.1, 7.1 | For emission units (EUs) 1-3, 5, 106, 107, 110, and 518-520 , burn only gas as fuel. Monitoring for these EUs shall consist of a statement in each operating report (OR) indicating whether each of these EUs fired only gas during the period covered by OR. | EUs 1-3, 5, 106-107, 110, and 518-520 burned only fuel gas during the reporting period. |
| 1.3, 5.1a, 5.1b | If any of EUs 211-212 and 621-622 exceeds the calendar year operational threshold (Table C at 80, 200, 200, 530 hours respectively), then conduct Method 9 visible emission observations (VEs) according to the Method 9 Plan in Condition 3. Include in the OR: 1. Copies of the observation results (Method 9 form); 2. Number of days observations were made; 3. Highest six- and 18-consecutive minute average opacities observed; and 4. Dates when one or more observed six-minute average opacities were greater than 20% for each EU. | Not triggered. |
| 1.4, 7.4 | For EUs 4, 108 and 109 , use gas as the primary fuel. Monitoring for these EUs shall consist of a statement in each OR indicating whether each of the EUs fired gas as the primary fuel during the period covered by the report. | EUs 4, 108 and 109 burned fuel gas as the primary fuel during the reporting period. |
| 1.4, 5.1a, 5.1b, 14 | If EUs 4, 108, or 109 on back-up liquid fuel exceeds any multiple of 400 hours in a calendar year, perform Method 9 VEs according to Conditions 14.2 and 14.3 for the affected EU. Include in the OR: 1. Copies of the observation results (Method 9 form); 2. Number of days observations were made; 3. Highest six- and 18-consecutive minute average opacities observed; and 4. Dates when one or more observed six-minute average opacities were greater than 20% for each EU. | Not triggered. EUs 4, 108 and 109 have not burned liquid fuel for more than 400 hours (or any subsequent multiple of 400 hours) during the calendar year to date. See Attachment 2, Part D. |
| 1.6, 6.2, 6.4 | For EUs 415-417 (flares) perform Method 9 VEs of one daylight flare event within 12 months after the preceding flare event observation or within 12 months after the permit effective date, whichever is later, for each EU. Include in the OR: 1. Flare(s) EU number; 2. Results of the Method-9 observations; 3. Reason(s) for flaring; 4. Date, beginning and ending time of event; and 5. Volume of gas flared. | EU ID 415 and 416 Method 9 observations were conducted on 7/13/2018 and 7/7/2018, respectively. Observations were included in the revised 3rd quarter operating report and the 3rd quarter operating report, respectively. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|--------------------|---|--|
| 2.2, 5.1a, 5.1b | For EUs 313 and 314 , perform Method 9 VEs once per calendar year and upon request by ADEC. Include in the OR: <ol style="list-style-type: none"> 1. Copies of the observation results (Method 9 form); 2. Number of days observations were made; 3. Highest six- and 18-consecutive minute average opacities observed; and 4. Dates when one or more observed six-minute average opacities were greater than 20% for each EU. | EU ID 313 and 314 Method 9 observations were conducted on 7/4/2018 and 6/21/2018, respectively. Observations were included in the 3 rd quarter and 2 nd quarter operating reports, respectively. |
| 5.1c | For EUs 4, 108-109, 211-212, 313-314, and 621-622 include in the OR a summary of any Method 9 monitoring required under Condition 2.1 or 3 that was not done, or Method 9 recordkeeping required under Condition 2.2 or 4 that was not done. | Not triggered. |
| 6.3 | For EUs 415-417 (flares) , if more than 12 months have elapsed since the last qualifying flare event was monitored, and monitoring of a flare event is postponed for safety or weather reasons, or because a qualified observer is not available, include in the OR an explanation of the reason the event was not monitored. | Not triggered. |
| 7.3, 8.2, 10.3 | If any of EUs 211-212 and 621-622 exceeds the calendar year operational threshold (Table C at 80, 200, 200, 530 hours respectively), then, as applicable, include in the OR: <ol style="list-style-type: none"> 1. Dates, EU ID(s), and results when an observed <u>18-minute average</u> opacity was greater than 20% or, for an EU with an exhaust diameter less than 18 inches, when an observed <u>18-minute average</u> opacity was greater than <u>15%</u> and not more than 20% (see Condition 8.2); 2. Summary of the results of any PM testing under Condition 8; and 3. Copies of any VE results greater than the thresholds stated above, if they were not submitted prior to submitting the OR. | Not triggered. |
| 7.4, 10.3, 14 | For EU 4 when burning backup liquid fuel for more than 400 hours in the calendar year, if VEs required by Conditions 14.2 and 14.3 exceed 20% averaged over 6 consecutive minutes, include in the OR: <ol style="list-style-type: none"> 1. Dates, EU ID(s), and results when an observed <u>18-minute average</u> opacity was greater than 20%; 2. Summary of the results of any PM testing under Condition 8; and 3. Copies of any VE results greater than the thresholds stated above, if they were not submitted prior to submitting the OR. | Not triggered. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|--|---|---|
| 7.4, 13.1, 14 | For EUs 108-109 when burning backup liquid fuel for more than 400 hours in the calendar year, if VEs required by Conditions 14.2 and 14.3 exceed 20% averaged over 6 consecutive minutes, include in the OR: 1. Dates, EU ID(s), and results when an <u>18-minute average</u> opacity observation was greater than 20%; and 2. Summary of the results of any PM testing and VEs conducted under Conditions 11 and 14. | Not triggered. |
| Sulfur Compound Monitoring, Recordkeeping and Reporting | | |
| 15.2a, 17.2b, 18.2b, 20.1 | When using arctic heating fuel from a North Slope topping plant in EUs 4, 108-109, 211-212, 621-622, heaters within EU 742, and 839 list the sulfur contents measured for each month covered by the OR. | Not applicable. Arctic Heating Fuel is not combusted at Alpine. |
| 15.5b(i) – (iii), 17.2b, 18.2b, 20.1 | When using other fuel oil in EUs 4, 108-109, 211-212, 621-622, heaters within EU 742, and 839 include in the OR: 1. List of the fuel grades received at the stationary source during the reporting period; 2. For any fuel grade with a maximum fuel sulfur content greater than 0.11% _{wt} , the fuel sulfur content of each shipment; and 3. Results of all fuel sulfur analyses conducted during the reporting period and documentation of the method(s) used to complete the analyses. | All diesel used in fuel burning equipment at Alpine during the reporting period was ULSD grade fuel. See Attachment 1, Part A for liquid fuel lab reports. |
| 15.2d, 15.5b(iv) | When using arctic diesel fuel from a North Slope topping plant or other fuel oil in EUs 4, 108-109, 211-212, 621-622, heaters within EU 742, and 839 with a sulfur content greater than 0.75% _{wt} , include the calculated SO ₂ emissions in ppm in the OR. | Not triggered. Arctic Heating Fuel is not combusted at Alpine, and ULSD has sulfur content not to exceed 0.0015% _{wt} . |
| 15.8b, 16.2c, 17.2b, 21.1 | For fuel gas fired EUs 1-5, 106-110, 313-314, 415-416, 518-520, and 839 , analyze a representative sample of fuel gas at least monthly to determine the sulfur (H ₂ S) content. Include in the OR the fuel analysis results. | See Attachment 1, Part B. All Alpine gas-fired EUs listed at left use the same gaseous fuel. |
| 15.8b, 21.1 | For EU 417 , analyze a sample of the fuel gas burned at least once in any month that any portable flare operates to determine the sulfur (H ₂ S) content of the gas. Include in the OR the fuel analysis results and records of portable flare operations. | Not triggered. No portable flare use at Alpine during the reporting period. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|---|--|--|
| Pre-Construction Permit Requirements | | |
| 16.2d, 5.1 | For EUs 1-3 , perform Method 9 VEs within 12 months of the permit effective date (3/2/16) and within 12 months of the prior observation. Include in the OR - <ol style="list-style-type: none"> 1. Copies of the observation results (Method 9 form), 2. Number of days observations were made, 3. Highest six- and 18-consecutive minute average opacities observed, 4. Dates when one or more observed six-minute averages were greater than 20% opacity for each observed EU, and 5. Dates when one or more observed six-minute average opacities were greater than the BACT limit of 10% for any six consecutive minutes while fired on natural gas. | EU ID 1, 2, and 3 Method 9 observations were conducted on 5/23/2018. Observations were included in the 2 nd quarter operating report. |
| 16.4e | For turbine EUs 1-3 , include in the OR the monthly and the consecutive 12-month summation of CO emissions recorded for each of EUs 1 through 3 for each month of the reporting period. | See Attachment 2, Part D. |
| 16.6d | Document all process upsets that result in EUs 1, 2, and/or 3 operating at less than 40%, 10% and 40% load, respectively. Include in the OR the cause of the upset, the duration of the upset, and what action was taken to minimize CO emissions, as applicable. | See Section VII. |
| 16.7d | Summarize in the OR the monthly total time and consecutive 12-month total time that each of EU 4 or 5 operate out of low emissions mode for each month of the reporting period. Include in the OR for each occurrence of operation out of low emission mode the date, time, and duration; turbine intake temperature; gas producer speed; T5 temperature; power level; and whether each occurrence was due to: <ul style="list-style-type: none"> • Startup; • Shutdown; • Subzero turbine intake temperatures; • Periods of required emission testing; or • Load change when EU 4 or 5 is in lead (isochronous) mode due to EU 2 being out of service or out of lead (droop) mode | See Attachment 2, Part A. |
| 16.8a(v) | For EUs 1, 2, or 3 , include copies of the QA procedures developed for the process parameters used for the predictive emissions correlations for CO emissions in the OR. | QA procedures are being developed and will be included with the OR when completed. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|------------|---|--|
| 16.8a(v) | For EU 4 or 5 , include copies of the QA procedures developed for the process parameters used for correlations for the Reference Method NO _x stack tests in the OR. (This is triggered only if the pilot valve movement to the intermediate or full open position exceeds 48 hours in any consecutive 12-month period other than due to startup, shutdown, subzero turbine intake temperatures, periods of required emission testing, load change when EU 4 or 5 is in lead (isochronous) mode due to EU ID 2 being out of service, or startup and shutdown of EU ID 2.) | Not triggered. |
| 16.8b(v) | For EU 1, 2, or 3 , attach copies of results of all RM tests (including rejected test results) conducted under Conditions 16.8b(i) and the results of the RA test completed under Condition 16.8b(iii) for CO. | Not triggered. |
| 16.8b(v) | For EU 4 or 5 , attach copies of results of all RM tests conducted under Condition 16.8b(ii) and the results of the RA test completed under Condition 16.8b(iii) for NO _x . | Not triggered. |
| 16.9c | For EUs 4-5 , calculate the 12-month combined rolling total operating time at less than 45% load (may not exceed 316 combined hours in any 12 consecutive months), excluding operating during startup, shutdown, and periods of required testing. Report for each month of the reporting period. | See Attachment 2, Part A. The hour limit was not exceeded during the reporting period. |
| 17.2c, 5.1 | For EUs 106-109 and 518 when firing fuel gas, conduct Method 9 VE within 12 months of the permit effective date (3/2/16) and within 12 months of the prior observation. Include in the OR: 1. Copies of the observation results (Method 9 form); 2. Number of days observations were made; 3. Highest six- and 18-consecutive minute average opacities observed; 4. Dates when one or more observed six-minute averages were greater than 20% opacity for each observed EU; and 5. Dates when one or more observed six-minute average opacities were greater than the BACT limit of 10% for any six consecutive minutes while fired on natural gas. | EU ID 106-109 and 518 Method 9 observations were conducted on 5/23/2018. Observations were included in the 2 nd quarter operating report. |
| 17.2d | For EUs 108-109 , indicate in each OR whether each of these EUs fired only gas during the period covered by the report. If operation on back-up liquid fuel occurred during the period covered by the report, monitor, record, and report according to Condition 14 to demonstrate compliance with the short-term heater BACT PM (opacity) limit when these units are fired on backup liquid fuel. | EU IDs 108 and 109 burned only fuel gas during the reporting period. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|---|---|---|
| 19.6 | For EUs 415-416 , include in the OR: 1. Copies of the logs required by Condition 19.4 of any informal VEs made per Condition 19.2 and any Method 22 observations made per Condition 19.3; 2. The starting date, the completion date, and a description of the actions taken to reduce VEs; and 3. The dates that informal VEs per Condition 19.2 were made, and the dates, if any, that a Method 22 VE per Condition 19.3 was observed. | See Section IX and Attachment 7. |
| Owner Requested Limits and Limits to Protect Ambient Air Quality Standards (AAQS) and Increments | | |
| 23.1, 23.6, 25.1 | Report the monthly total operating time for each of EUs 1-5, 106-110, 211-212, 313-314, 415-416, 518-520, 621-622, and 839 . | See Section VI and Attachment 2, Part B. |
| 23.2, 23.6 | Report the rolling 12-month total hours of operation during which each of EUs 4-5 was fired on lean fuel gas. | See Attachment 2, Part A. |
| 23.3, 23.6 | Report the rolling 12-month total hours of operation during which each dual fuel-fired EUs 4, 108, and 109 was fired on liquid fuel. | See Attachment 2, Part D. |
| 23.4, 23.6, 25.1 | Report the rolling 12-month total hours of operation for each of EUs 211-212, 313-314, and 621 . | See Attachment 2, Part D. |
| 23.5, 23.6 | Report the calendar year total hours of operation for each of EUs 211-212, 621, and 622 . | See Attachment 2, Part E. |
| 24.3 | For each of EUs 1-5, 106-110, 211-212, 313-314, 415-417, 518-520, 621-622, 742-743, and 839 , report monthly total fuel consumption for each fuel type (MMscf/month and/or gallons/month) for each month of the reporting period. | See Section VI and Attachment 2, Part B and Part C. |
| 24.4 | For EUs 742-743 , report the maximum daily combined total fuel consumption (gallons) at CD-1 and CD-2, combined, and all daily total fuel consumption values in excess of the daily limit found in Condition 22 (5,831 gallons), if applicable, for each month of the reporting period. | See Attachment 2, Part C for maximum daily fuel consumption. No values were in excess of the daily limit. |
| 24.5 | For EUs 742-743 , report the 12 consecutive month total fuel consumption (gallons) at CD-1, CD-2, CD-3, and CD-4, combined, for each month of the reporting period. | See Attachment 2, Part C. |
| 24.6 | For EU 417 , report the following data at CD-1, CD-2, CD-3, and CD-4 for each month of the reporting period: 1. Location, date and time of startup and completion for each portable flare and whether simultaneous portable flare operations occurred on a single pad; and 2. Quantity of gas combusted during each flaring event, average temperature and pressure, corrected quantity of gas combusted each month (MMscf), and 12 consecutive month total gas burned in all portable flares (MMscf). | See Section VIII and Attachment 2, Part D. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|--|--|--|
| 26.3 | For EU 946 for any month in which well maintenance occurs and live crude oil has been sent to EU 946, include in the OR: 1. Monthly and rolling 12-month total VOC emissions estimated at CD-1, CD-2, CD-3, and CD-4; 2. Input and output from simulation models and software; and 3. All calculations and assumptions used. | See Attachment 2, Part D and Attachment 3. |
| Insignificant Emission Units | | |
| 27.4c | For EUs 211-212, 621, and 622 and the Snowmelter Heater (AM-1001 in Table B) , include in the OR any of these EUs that have historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions become greater than any of those thresholds. | Not triggered. |
| Section 4: Federal Requirements | | |
| Turbines Subject to NSPS Subpart GG | | |
| 38.3a | For EUs 1-5 that are subject to load limits in order to comply with NSPS Subpart GG NO _x limits and/or BACT NO _x /CO emission limits, list each turbine tested or represented by testing at less than maximum load and that must have its load limited [by Condition 38.1c(iii)]. Include the following information in the OR: 1. Load limit; 2. Turbine identification; and 3. Highest load recorded during the reporting period as part of recordkeeping requirements. | Not triggered. |
| 38.3b | For each turbine subject to NSPS Subpart GG NO _x limits and/or BACT NO _x /CO emission limits (EUs 1-5) that has not been required to conduct periodic source testing because it normally operates less than 400 hours in any 12 consecutive months, but has now operated more than 400 hours in a 12 consecutive month period ending during the reporting period, identify: 1. Turbine; 2. Highest number of operating hours for any 12 consecutive months ending during the period covered by the report; and 3. Any turbine that operated for 400 hours or more. | Not triggered. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|---|--|--|
| 39.3b [39.2, 39.1b, 39.1c, 39.1d(ii)] | <p>For EUs 1-5, include in the OR the results of semi-annual fuel gas H₂S content analyses conducted using ASTM D4810-88, D4913-89, or GPA 2377-86 <u>or</u> demonstrate that the fuel gas burned by these units meets the definition of natural gas in 40 CFR 60.331(u).</p> <p>For EU 4 for each calendar month when fired on liquid fuel, report the results of a fuel oil sulfur analysis conducted in accordance with ASTM D129-00, D2622-98, D4294-02, D1266-98, D5433-00, D1552-01, or D7039-07.</p> | <p>A demonstration that the fuel gas burned by EUs 1-3 meets the definition of natural gas found in 40 CFR 60.331(u) was submitted to EPA on February 11, 2005 and May 11, 2005.</p> <p>A June 30, 2005 letter from EPA outlining a Custom Fuel Monitoring Schedule for Alpine under NSPS Subpart GG states, "has adequately demonstrated to the EPA that Alpine gaseous fuel meets the definition of natural gas."</p> <p>All turbines at Alpine (EUs 1-5) are fired using the same gaseous fuel.</p> <p>See Attachment 1, Part A for liquid fuel sulfur content lab reports.</p> |
| Compression Ignition RICE Subject to NESHAP Subpart ZZZZ | | |
| 46.5a | For EUs 211, 212, and 621 include in the OR a report of Subpart ZZZZ deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 of Subpart ZZZZ) was not met. | <p>Not triggered.</p> <p>There were no Subpart ZZZZ deviations during the reporting period.</p> |
| Owner Requested Limits | | |
| 48.4 | For EUs 313-314 include in the OR the calculated quarterly percentage of dry sewage sludge incinerated in each EU. | <p>The percent weights of incinerated dry sewage sludge waste relative to the weight of all fuels and wastes combusted during the reporting period for each incinerator are:</p> <p>EU ID 313: 0%</p> <p>EU ID 314: 0%</p> |
| 49.3 | For EUs 313-314 include in the OR the calculated quarterly percentage of hospital/medical/infectious waste incinerated in each EU. | <p>The percent weights of incinerated H/M/I waste relative to the weight of all fuels and wastes combusted during the reporting period for each incinerator are:</p> <p>EU ID 313: 0%</p> <p>EU ID 314: 0%</p> |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|--|--|--|
| 50.3 | For EUs 313-314 include in the OR the calculated quarterly percentage of municipal solid waste or refuse-derived fuel incinerated in each EU. | The percent weights of incinerated municipal solid waste or refuse-derived fuel relative to the weight of all fuels and wastes combusted during the reporting period for each incinerator are: EU ID 313: 80% EU ID 314: 80% |
| Section 5: General Conditions | | |
| 63.2, 65.5 | Include a brief summary report about emissions complaints that includes: 1. Number of complaints received; 2. Number of times COPA/ADEC found corrective action necessary; 3. Number of times action was taken on a complaint within 24 hours; and 4. Status of corrective actions COPA or ADEC found necessary that were not taken within 24 hours. | See Section X. |
| Section 7: General Recordkeeping and Reporting Requirements | | |
| Operating Reports | | |
| 83.2, 83.3 | Report any excess emissions or permit deviations not previously reported. Include for each event: 1. Date of the deviation; 2. Equipment involved; 3. Permit condition affected; 4. Description of the excess emissions or permit deviation; and 5. Any corrective action or prevention measures taken and the date(s) of such actions. Alternatively, when excess emissions/deviations have already been reported to ADEC, cite the dates of those reports. | See Attachment 4. |
| 83.4 | Include in the OR a listing of emissions monitored under Conditions 3.1e, 8.2, and 38.1a which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. Include in the OR: 1. Date of the emissions; 2. Equipment involved; 3. Permit condition affected; and 4. Monitoring result that triggered additional monitoring. | See Section XI. |

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

| Condition | Requirement | Compliance Documentation |
|--------------------------------|--|--|
| NSPS and NESHAP Reports | | |
| 85.1 | Except for Federal reports and notices submitted through EPA's CDX-CEDRI on-line reporting system, attach a copy of any NSPS and NESHAPs notification and report submitted to EPA Region 10 during the reporting period unless a copy has already been provided to the Department. | ADEC was copied on all NSPS and NESHAP reports submitted to EPA during the reporting period. |

IV. Visible Emissions Reporting Summaries

Condition 5.1: Method 9 Summaries

Copies of all Method 9 visible emission observation forms completed during the reporting period for diesel-fired emission units and incinerators are provided in Attachment 6. A summary of the Method 9 results for diesel fuel fired emission units and incinerators is provided below.

| EU ID | Tag No. | Date of Method 9 | Permit Condition | Initials of Reader | Highest 6-Minute Average (%) | Highest 18-Minute Average (%) | 6-Minute Average >20%? (Y/N) |
|-------|---------|------------------|------------------|--------------------|------------------------------|-------------------------------|------------------------------|
| | | | | | | | |
| | | | | | | | |

- No Method 9 diesel fuel-fired equipment or incinerator observations during the reporting period.

Conditions 6.2, 6.3, and 6.4: Method 9 and Operational Summaries for Flares

Copies of all Method 9 visible emission observation forms completed during the reporting period are provided in Attachment 6. A summary of the flare Method 9 results is provided below.

| EU ID | Tag No. | Date of Method 9 | Begin and End Times of Event | Initials of Reader | Highest 6-Minute Average (%) | >20%? (Y/N) | Reason for Flaring | Volume of Gas Flared (MMscf) |
|-------|---------|------------------|------------------------------|--------------------|------------------------------|-------------|--------------------|------------------------------|
| | | | | | | | | |
| | | | | | | | | |

- No flare Method 9 observations during the reporting period.

Conditions 16.2d, 17.2c, and 17.2d: Compliance with Particulate Matter (Opacity) BACT Limits

Copies of all Method 9 visible emission observation forms completed during the reporting period are provided in Attachment 6. A summary of the Method 9 results for equipment subject to BACT opacity limits is provided below.

| EU ID | Tag No. | Date of Method 9 | Permit Condition | Initials of Reader | Highest 6-Minute Average (%) | 6-minute Average >20%? (Y/N) | 6-Minute Average >10%? (Y/N) |
|-------|---------|------------------|------------------|--------------------|------------------------------|------------------------------|------------------------------|
| | | | | | | | |
| | | | | | | | |

- No Method 9 observations during this reporting period for EU IDs 1-3, 106 – 109, or 518.

V. Particulate Matter Reporting Summaries

Conditions 10.3 and 13.1: Method 9 and PM Test Result Summaries

Copies of all Method 9 VE forms completed during the reporting period are provided in Attachment 6. The following Method 9 observations resulted in 18-minute average opacity readings that exceeded 15% for stacks <18 inches or otherwise exceeded 20% during the reporting period:

None this reporting period.

Fourth Quarter 2018 Operating Report
October 1, 2018 through December 31, 2018

Air Quality Control Operating Permit No. AQ0489TVP02 Revision 2
Issued September 11, 2018

VI. Hours of Operation, Fuel Type, Fuel Consumption and Applicable Operating Parameters

Conditions 23.1, 23.6, 24.3, and 25.1:

Due to the requirement to report all quantities, even if zero, all regulated EUs are listed where required. All blanks indicate that the listed EU is not capable of burning that type of fuel or that reporting is not required. Operating hours, fuel type, fuel consumption and applicable operating parameters are provided in Attachment 2.

VII. BACT Load Restrictions for Turbines (EU IDs 1-3)

Condition 16.6d: Document Process Upsets Resulting in Low Load Operations

For EU IDs 1-3, process upsets that resulted in low load operation (less than 40%, 10%, and 40%, respectively) during the reporting period are summarized below.

None this reporting period.

VIII. Portable Flares (EU ID 417) Record of Operations

Conditions 15.8b, 21.1, and 24.6: Document Portable Flare Operations

No portable flare operation at CD-1, CD-2, CD-3, or CD-4 during the reporting period.

IX. Flare EU IDs 415 and 416 Record of Informal and Method 22 Visible Emissions Observations

Condition 19.6: Document Informal and Method 22 VEs for EUs 415 and 416

Logs documenting informal and Method 22 VEs of flare EUs 415 and 416 completed during the reporting period are provided in Attachment 7. A summary of the observations is provided below.

| EU ID | Informal or Method 22? | Date/ Time | Duration of Observation | Visible Emissions? | Corrective Actions to Reduce VE |
|-------|------------------------|-------------|-------------------------|--------------------|---------------------------------|
| 415 | Informal | 6 Oct 7:53 | 6 min | None | N/A |
| 416 | Informal | 6 Oct 7:53 | 6 min | None | N/A |
| 415 | Informal | 5 Nov 10:30 | 5 min | None | N/A |
| 416 | Informal | 5 Nov 10:30 | 5 min | None | N/A |
| 415 | Informal | 7 Dec 13:50 | 10 min | None | N/A |
| 416 | Informal | 7 Dec 14:00 | 10 min | None | N/A |

X. Record of Complaints During the Reporting Period

Conditions 63.2 and 65.5:

No complaints received during the reporting period.

XI. Operating Report Requirements

Condition 83.4: Additional Testing or Monitoring Triggered

The following table lists emissions monitored during the reporting period under Conditions 3.1e, 8.2, and 38.1a that trigger additional testing or monitoring.

| Affected Permit Condition (3.1e, 8.2, or 40.1a) | Date when emissions were monitored | Equipment Involved | Monitoring Result that Triggered Additional Monitoring |
|---|------------------------------------|--------------------|--|
| None | NA | NA | NA |

Attachment 1

Monthly Laboratory Analysis Results of Fuel Sulfur and H₂S Content

Part A: Conditions 15.5b(iii) and 39.3b ULSD Sulfur Content Analyses

KUPARUK LABORATORY
ANALYTICAL REPORT

Alpine Title V Air Quality Report
October 2018

Report Date: 11/3/18
To: Alpine Environmental n1477@conocophillips.com

Alpine Sulfur in Diesel
ULSD Imported Product

| LIMs# | Sample location | Date | Sulfur Content | | Reference | Notes |
|----------------|-----------------|-----------|----------------|-------|-------------------------------|---------|
| | | | Result | Units | | |
| S-181008-00106 | Alpine ULSD | 10/1/2018 | < 3 | ppm | ASTM 7039-07 or ASTM D2622-10 | Monthly |

Note: NA- Not analyzed
Contact NSK Environmental group for copies of this report

KUPARUK LABORATORY ANALYTICAL REPORT

Alpine Title V Air Quality Report
November 2018

Report Date: 2/10/19

To: Alpine Environmental n1477@conocophillips.com

| Alpine Sulfur in Diesel ULSD Imported Product | | Sulfur Content | | Reference | Notes |
|--|-----------------|----------------|-------|-------------------------------|---------|
| LIMS# | Sample location | Result | Units | | |
| S-181108-00308 | Alpine ULSD | 7.5 | ppm | ASTM 7039-07 or ASTM D2622-10 | Monthly |

Note: NA- Not analyzed
Contact NSK Environmental group for copies of this report

KUPARUK LABORATORY
ANALYTICAL REPORT

Alpine Title V Air Quality Report
December 2018

Report Date: 1/3/19
To: Alpine Environmental n1477@conocophillips.com

Alpine Sulfur in Diesel
ULSD Imported Product

| LIMs# | Sample location | Date | Sulfur Content | | Reference | Notes |
|----------------|-----------------|-----------|----------------|-------|-------------------------------|---------|
| | | | Result | Units | | |
| S-181209-00130 | Alpine ULSD | 12/1/2018 | < 3 | ppm | ASTM 7039-07 or ASTM D2622-10 | Monthly |

Note: NA- Not analyzed
Contact NSK Environmental group for copies of this report

Part B: Condition 15.8b
Fuel Gas H₂S Content Analyses
Portable Flare (EU ID 417) Fuel Gas H₂S Content Analyses

ConocoPhillips Alaska, Inc.
Monthly Gaseous Fuel H₂S Analysis Results
Permit AQ0489TVP02, Condition 15.8b
Alpine Central Processing Facility
2018

2018.3

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Permit Limit |
|--|------|------|------|------|------|------|------|-----|------|------|------|------|--------------|
| H ₂ S Content of Fuel Gas (ppmv) | 36.0 | 50.0 | 56.0 | 70.0 | 60.0 | 55.0 | 16.7 | 0.0 | 50.0 | 47.0 | 45.0 | 50.0 | 200 ppmv |
| H ₂ S Content of Portable Flared Gas (ppmv) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 200 ppmv |

Note: "NA" means that the Portable Flare was not used at CD1, CD2, CD3, or CD4 during that month, so a flared gas H₂S analysis is not available for that month.

Attachment 2

Hours of Operation, Fuel Type, Fuel Consumption and Applicable Operating Parameters by Month

Part A: Conditions 16.7d, 16.9c, and 23.2

ConocoPhillips Alaska, Inc.
Solar Turbines / Black Start Generator Monthly Summary Operating Report
Air Quality Permit # AQ0489MSS01 and AQ0489TVP02
OCTOBER, 2018

| Equipment | OCT-2018 | | 2018 YTD | | Rolling 12 | | OCT-2018 | | FUEL GAS 2018 YTD | | Rolling 12 | |
|---------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|--------------|----------------------|--------------|----------------|--------------|
| | RunTime hrs | Use gals | RunTime hrs | Use gals | RunTime hrs | Use gals | RunTime hrs | Use mmscf | RunTime hrs | Use mmscf | RunTime hrs | Use mmscf |
| S1 Turbine | | | | | | | | | | | | |
| CF-G-70300-TB | 1.3 | 506.4 | 65.8 | 24642.7 | 66.9 | 24979.6 | 11.00 | 0.534 | 434.4 | 26.050 | 571.9 | 32.846 |
| Rich | 0 | 0 | 0 | 0 | 0 | 0 | 11.00 | 0.534 | 434.4 | 26.050 | 571.9 | 32.846 |
| Lean | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.000 | 0.0 | 0.000 | 0.0 | 0.000 |
| S2 Turbine | | | | | | | | | | | | |
| CF-G-70350-TB | 0 | 0 | 0 | 0 | 0 | 0 | 121.22 | 5.814 | 2818.6 | 134.27 | 3801.8 | 178.34 |
| Rich | 0 | 0 | 0 | 0 | 0 | 0 | 121.22 | 5.814 | 2818.6 | 134.27 | 3801.8 | 178.34 |
| Lean | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.000 | 0.0 | 0.000 | 0.0 | 0.000 |
| S4 Generator | | | | | | | | | | | | |
| CF-G-70375 | 2.8 | 33.0 | 17.1 | 205.0 | 18.3 | 219.0 | 0 | 0 | 0 | 0 | 0 | 0 |

Operating Time Out of Low Emissions Mode

| Unit Event | hh:mm:ss.t | Rolling Year |
|----------------------------------|--------------|--------------|
| S1 COOLDOWN | +000:10:27.0 | |
| STARTUP | +000:12:30.1 | |
| REQUIRED STACK TEST | +000:00:00.0 | |
| SUBZERO | +000:00:00.0 | |
| ISOCH LOAD CHANGE and E1 OFFLINE | +000:00:00.0 | |
| Total Exempt | +000:22:57.1 | |
| DROOP LOAD CHANGE | +000:00:54.0 | |
| ISOCH LOAD CHANGE and E1 ONLINE | +000:00:00.0 | |
| OTHER | +000:02:13.1 | |
| Total NonExempt | +000:03:07.1 | +002:15:06.8 |
| Grand Total (Exempt + NonExempt) | +000:26:04.2 | |
| S2 COOLDOWN | +000:05:46.0 | |
| STARTUP | +000:05:57.0 | |
| REQUIRED STACK TEST | +000:00:00.0 | |
| SUBZERO | +000:00:00.0 | |
| ISOCH LOAD CHANGE and E1 OFFLINE | +000:00:00.0 | |
| Total Exempt | +000:11:43.0 | |
| DROOP LOAD CHANGE | +000:00:58.1 | |
| ISOCH LOAD CHANGE and E1 ONLINE | +000:00:00.0 | |
| OTHER | +000:00:50.0 | |
| Total NonExempt | +000:01:48.1 | +005:28:25.5 |
| Grand Total (Exempt + NonExempt) | +000:13:31.1 | |

Low Load Summary (Less than 45%) excluding startup/shutdown/stacktest

| Unit | hh:mm:ss.t | Rolling Year |
|-----------------|--------------|--------------|
| S1 | +000:00:00.0 | +000:45:00.0 |
| S2 | +000:00:00.0 | +004:34:59.9 |
| Total NonExempt | +000:00:00.0 | +005:19:59.9 |

ConocoPhillips Alaska, Inc.

Solar Turbines Events Summary Operating Report

Operating Time Out of Low Emissions Mode

Air Quality Permit # AQ0489TVP02

OCTOBER, 2018

| Unit | Event Time | Duration HHH:MM:SS.T | Triggering Event | Cooldown Active | Startup Active | Stacktest Active | Lowload Active | Subzero Active | Loadchange Active | Fuel Type | Electrical Mode | Pilot Valve Position % Open | Air Intake Temp Deg F | Turbine Speed % | T5 Temp Deg F | Real Power MW |
|------|--------------------|-------------------------|---------------------|--------------------|-------------------|---------------------|-------------------|-------------------|----------------------|--------------|--------------------|-----------------------------------|-----------------------------|-----------------------|---------------------|---------------------|
| S1 | 03-OCT-18 03:32:48 | +000:05:43.1 | STARTING | NO | YES | DIS | NO | NO | NO | GAS | DROOP | 99.6 | 40.3 | 20.8 | 641.9 | 0.00 |
| | 03-OCT-18 13:03:38 | +000:01:27.0 | LOWLOAD | NO | NO | DIS | YES | NO | NO | GAS | DROOP | 99.7 | 37.5 | 100.0 | 1231.0 | 2.62 |
| | 03-OCT-18 13:05:05 | +000:05:07.1 | COOLDOWN | YES | NO | DIS | NO | NO | NO | GAS | DROOP | 99.7 | 37.4 | 99.9 | 538.1 | 0.40 |
| | 07-OCT-18 08:40:18 | +000:06:47.0 | STARTING | NO | YES | DIS | NO | NO | NO | LIQ | DROOP | 0.6 | 32.9 | 20.2 | 596.4 | 0.00 |
| | 07-OCT-18 09:53:10 | +000:00:54.0 | LOADCHANGE | NO | NO | DIS | NO | NO | YES | GAS | DROOP | 99.6 | 27.6 | 100.0 | 1219.9 | 5.02 |
| | 07-OCT-18 11:04:23 | +000:00:46.1 | LOWLOAD | NO | NO | DIS | YES | NO | NO | GAS | DROOP | 99.7 | 28.9 | 100.0 | 1195.3 | 2.72 |
| | 07-OCT-18 11:05:09 | +000:05:19.9 | COOLDOWN | YES | NO | DIS | NO | NO | NO | GAS | DROOP | 99.6 | 29.0 | 100.0 | 587.1 | 0.85 |
| S2 | 03-OCT-18 12:54:51 | +000:05:57.0 | STARTING | NO | YES | DIS | NO | NO | NO | GAS | DROOP | 99.6 | 48.5 | 21.2 | 840.9 | 0.00 |
| | 04-OCT-18 23:22:18 | +000:00:58.1 | LOADCHANGE | NO | NO | DIS | NO | NO | YES | GAS | DROOP | 99.8 | 37.5 | 99.9 | 1217.5 | 4.53 |
| | 06-OCT-18 10:40:35 | +000:00:50.0 | LOWLOAD | NO | NO | DIS | YES | NO | NO | GAS | DROOP | 99.8 | 39.2 | 100.0 | 1203.2 | 2.34 |
| | 06-OCT-18 10:41:25 | +000:05:46.0 | COOLDOWN | YES | NO | DIS | NO | NO | NO | GAS | DROOP | 99.8 | 39.0 | 100.2 | 730.1 | 2.10 |

ConocoPhillips Alaska, Inc.
Solar Turbines / Black Start Generator Monthly Summary Operating Report
Air Quality Permit # AQ0489MSS01 and AQ0489TVP02
NOVEMBER, 2018

| Equipment | NOV-2018 | | USD 2018 YTD | | Rolling 12 | | NOV-2018 | | FUEL GAS 2018 YTD | | Rolling 12 | |
|---------------|-------------|----------|--------------|----------|-------------|----------|-------------|-----------|-------------------|-----------|-------------|-----------|
| | RunTime hrs | Use gals | RunTime hrs | Use gals | RunTime hrs | Use gals | RunTime hrs | Use mmscf | RunTime hrs | Use mmscf | RunTime hrs | Use mmscf |
| S1 Turbine | | | | | | | | | | | | |
| CF-G-70300-TB | 1.3 | 528.9 | 67.2 | 25171.6 | 68.2 | 25508.5 | 204.45 | 9.525 | 638.9 | 35.575 | 727.1 | 39.909 |
| Rich | 0 | 0 | 0 | 0 | 0 | 0 | 204.45 | 9.525 | 638.9 | 35.575 | 727.1 | 39.909 |
| Lean | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.000 | 0.0 | 0.000 | 0.0 | 0.000 |
| S2 Turbine | | | | | | | | | | | | |
| CF-G-70350-TB | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.000 | 2818.6 | 134.27 | 3477.3 | 164.09 |
| Rich | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.000 | 2818.6 | 134.27 | 3477.3 | 164.09 |
| Lean | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.000 | 0.0 | 0.000 | 0.0 | 0.000 |
| S4 Generator | | | | | | | | | | | | |
| CF-G-70375 | 1.2 | 14.6 | 18.3 | 219.6 | 19.4 | 233.6 | 0 | 0 | 0 | 0 | 0 | 0 |

Operating Time Out of Low Emissions Mode

| Unit Event | hh:mm:ss.t | Rolling Year |
|----------------------------------|--------------|--------------|
| S1 COOLDOWN | +000:06:18.1 | |
| STARTUP | +000:21:33.7 | |
| REQUIRED STACK TEST | +000:00:00.0 | |
| SUBZERO | +072:58:05.8 | |
| ISOCH LOAD CHANGE and E1 OFFLINE | +000:00:00.0 | |
| Total Exempt | +073:25:57.6 | |
| DROOP LOAD CHANGE | +000:01:06.0 | |
| ISOCH LOAD CHANGE and E1 ONLINE | +000:00:00.0 | |
| OTHER | +000:01:19.1 | |
| Total NonExempt | +000:02:25.1 | +002:16:29.4 |
| Grand Total (Exempt + NonExempt) | +073:28:22.7 | |
| S2 COOLDOWN | +000:00:00.0 | |
| STARTUP | +000:00:00.0 | |
| REQUIRED STACK TEST | +000:00:00.0 | |
| SUBZERO | +000:00:00.0 | |
| ISOCH LOAD CHANGE and E1 OFFLINE | +000:00:00.0 | |
| Total Exempt | +000:00:00.0 | |
| DROOP LOAD CHANGE | +000:00:00.0 | |
| ISOCH LOAD CHANGE and E1 ONLINE | +000:00:00.0 | |
| Total NonExempt | +000:00:00.0 | +005:27:57.5 |
| Grand Total (Exempt + NonExempt) | +000:00:00.0 | |

Low Load Summary (Less than 45%) excluding startup/shutdown/stacktest

| Unit | hh:mm:ss.t | Rolling Year |
|-----------------|--------------|--------------|
| S1 | +000:00:00.0 | +000:45:00.0 |
| S2 | +000:00:00.0 | +004:34:59.9 |
| Total NonExempt | +000:00:00.0 | +005:19:59.9 |